No. 628,668. Patented July 11, 1899.

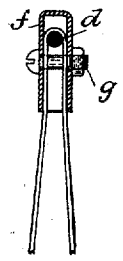
J. KNECHT.

PUSH BROOM.

(Application filed Dec. 23, 1898.)

(No Model.)

Fig. 9.



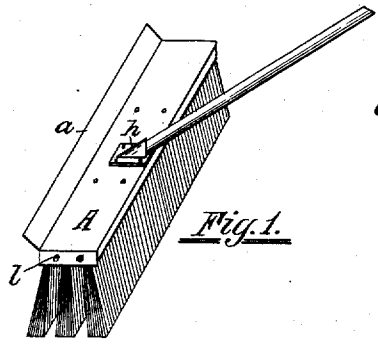


Fig. 1.

Fig. 10.

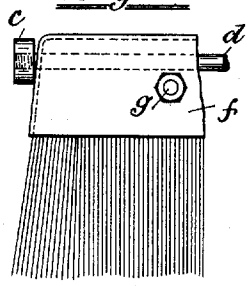


Fig. 3.

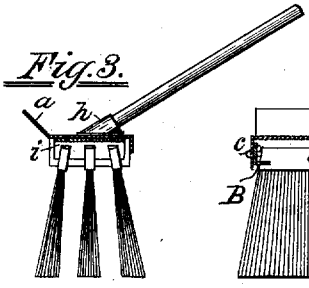


Fig. 2.

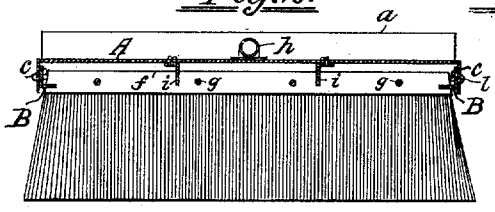


Fig. 4.

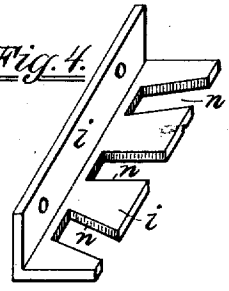


Fig. 5.

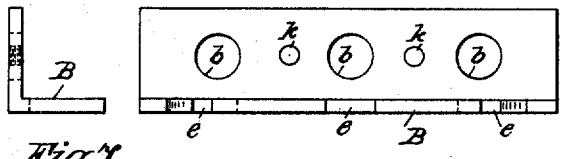
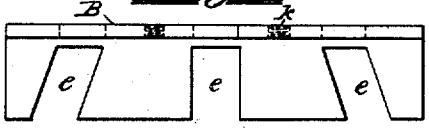


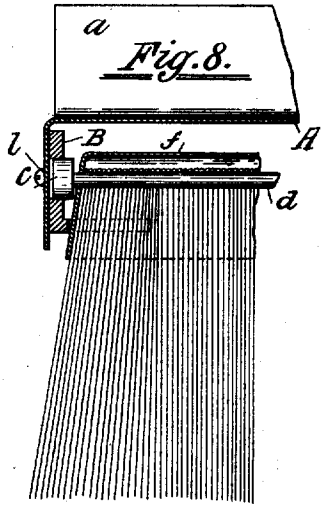
Fig. 7.

Fig. 6.



a

Fig. 8.



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By his Attorney
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UNITED STATES PATENT OFFICE.

JOHN KNECHT, OF NEW YORK, N. Y.

PUSH-BROOM.

SPECIFICATION forming part of Letters Patent No. 628,668, dated July 11, 1899.

Application filed December 23, 1898. Serial No. 700,152. (No model.)

To all whom it may concern:

Be it known that I, JOHN KNECHT, a citizen of the United States, and a resident of New York, (Brooklyn,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Push-Brooms, of which the following is a specification.

My invention relates to certain new and useful improvements in push-brooms, the object of which is the production of an economical push-broom of simple and durable construction, in which the brushes after having been worn out and rendered useless can be readily removed and refilled with new sweeping material.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of the improved push-broom complete. Fig. 2 is a longitudinal section of the same, showing the manner in which the brushes are supported. Fig. 3 is a vertical section of the push-broom. Fig. 4 is a perspective view of the intermediate brush-supporting bracket. Fig. 5 is a front elevation of the end brush-supporting bracket. Fig. 6 is a plan of the same. Fig. 7 is an end view of the same. Fig. 8 is an enlarged sectional view of one end of the push-broom, showing the brush in engagement with the supporting-bracket. Fig. 9 is a sectional end view of the brush, showing the manner in which the sweeping material is bent over the rod running lengthwise through the box. Fig. 10 is a side elevation of the same.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings, in which the preferable form is shown, the letter A designates a sheet-metal supporting-frame, to which are secured the brackets that support the brushes. The front of the supporting-frame A is turned upwardly at a suitable angle to form a scraper *a*. The ends of the supporting-frame are turned downwardly in order to form supports for the brush-supporting brackets B. The brackets B are shown secured to the frame A and provided with sockets *b*. The rods are shown provided with nuts *c*, which are secured to the ends of the rod *d* to support the individual brushes.

e are notches in brackets B for the reception of the ends of the brushes and which serve to prevent the brushes from turning and keep them in their relative positions to each other.

f is a sheet-metal U-shaped box closed at both ends, each end being perforated, said perforations forming bearings for the rod *d*, which passes lengthwise through the box.

The material of the brush is formed in loops, and Figs. 9 and 10 show the manner in which the loops are retained in the box by engagement with the rod *d*, the free ends of the loops forming the face of the broom. The box is firmly clamped upon the loops by bolts *g* extended through the sides of the box.

h is a holder suitably secured to the top of the supporting-frame A for the reception of the broom-handle.

i are intermediate brush-supporting brackets (see Fig. 4) secured to the under side of the supporting-frame A by means of rivets or bolts which serve to furnish supports for the brushes. The notches *n* in said brackets are for the reception of the tops of the brushes and serve to keep them in their relative position to each other.

The method of removing the brushes from the supporting-frame A in order to replace the worn-down material by new material is very simple.

Referring to Figs. 5, 6, and 7, it will be seen that the brush-supporting brackets B are provided with screw-holes *k* for the reception of the screws *l*. Said screws pass through holes in the downwardly-turned ends or flanges of the supporting-frame A, screw into the holes *k* of bracket B, and serve to retain the same in position. Therefore the simple operation of removing the screws *l* is only necessary in order to remove the brushes.

From the above description it will be seen that the essential feature of the broom is the employment of a series of individual brushes arranged side by side to form a group, and the essential feature of the individual brush

is the combination of the box and series of loops with a rod or strip inside the loops, with bolts or rivets to clamp the same together.

Of course various changes may be made in the details of construction of my push-broom without departing from the spirit of my invention. For instance, strips of wood or metal may be used instead of the rods *d*. The supporting-frame A may consist of a casting having the brush-supporting brackets cast integral therewith.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a broom, the combination of a head provided with a handle, a series of notched brackets secured to and depending from said head, and a series of brush or broom carrying frames adapted to fit in the notches of said brackets and be supported by the brackets.

2. In a broom, the combination of a head carrying a handle, a series of brackets carried by said head, and a series of U-shaped boxes adapted to be carried by said brackets, consisting of a casing, a rod passing therethrough, brush or broom loops suspended from said rod, clamping-bolts passing through said casing at right angles to the rod, and knobs or nuts carried at the ends of said rod.

Signed at New York, (Brooklyn,) in the county of Kings and State of New York, this 17th day of December, A. D. 1898.

JOHN KNECHT.

Witnesses:
J. BERHER,
HENRY FR. KOCH.